

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER: \_\_\_\_\_**

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,651	06/25/2001	Masahiro Nagata	6340-000018	5516
27572	7590	09/16/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			BUTLER, DENNIS	
		ART UNIT	PAPER NUMBER	
		2115		

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/891,651	NAGATA, MASAHIRO
	<b>Examiner</b>	<b>Art Unit</b>
	Dennis M. Butler	2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 25 June 2001.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>06252001</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2115

1. This action is in response to the application filed on June 25, 2001. Claims 1-15 are pending. Applicant has claimed foreign priority based on two Japanese applications. The Office has not received a certified copy of each of the priority documents. Applicant must submit the certified copies in order to perfect the claim of priority.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "the signal information of the control processor" lacks proper antecedent basis and is unclear whether the signal information is the input signal information received by the input means or some other input information. The phrase "control is determined" is unclear and indefinite as to its relationship to the control processor, the input means, the output means and changing a value of the output means. The phrase "within one cycle" is unclear and indefinite as to its relationship to the clock signals, the control and the output means. The phrase is unclear whether it refers to a clock cycle such as the standard clock cycle or the high speed clock cycle, to a cycle of the control, a cycle of the input or output means or some other cycle.

Claims 3-15 are rejected because they incorporate the deficiencies of claim 1.

Regarding claim 8, the phrases "the value" and "the control set by the predetermined value" lack proper antecedent basis.

Regarding claim 2, the phrase "the signal information of the control processor" lacks proper antecedent basis and is unclear whether the signal information is the input signal information received by the input means or some other input information. The phrase "control is determined" is unclear and indefinite as to its relationship to the control processor, the input means, the output means and changing a value of the output means.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Charles et al., U. S. Patent 5,790,842.

Per claims 1 and 5:

- A) Charles et al teach the following claimed items:

1. a control processor operating according to a high speed clock (40.5 MHz) obtained by multiplying (1.5x27MHz) a standard clock (27 MHz) with ASIC 20 of figures 1 and 6A and at column 18, lines 41-67;
2. input means with flip-flop 260 of figure 6A;
3. output means with flip-flop 272 of figure 6A;
4. determining control (select signal input control of multiplexer 262) according to the signal captured by the input means synchronously with the standard clock (27 MHz) within one cycle and a value of the output means (flip-flop 272) is changed by the control with figure 6A and at column 20, lines 36-67.

Per claim 2:

- A) Charles et al teach the following claimed items:
1. a control processor operating according to a high speed clock (40.5 MHz) obtained by multiplying (1.5x27MHz) a standard clock (27 MHz) with ASIC 20 of figures 1 and 6A and at column 18, lines 41-67;
  2. input means with flip-flop 260 of figure 6A;
  3. output means with flip-flop 272 of figure 6A;
  4. determining control (select signal input control of multiplexer 268) according to the signal captured by the input means synchronously with the standard clock (27 MHz) within a plurality of cycles of the standard clock and a value of the output means (flip-flop 272) is changed by the control with figure 6A and at column 20, lines 36-67.

Per claims 3-4 and 6:

Charles describes that the value of the output is changed synchronously with the standard clock (27 MHz) with flip-flop 272 of figure 6A. Charles describes the delay function to synchronize with the standard clock with flip-flop 260, multiplexer 262, flip-flop 264 and the ENB-27 signal input to multiplexer 262 of figure 6A. Charles describes comparison value storage means, a comparator and a control content with the selection input of multiplexer 262 and its output if figure 6A. The selection circuitry compares the value of the selection signal and outputs one of the two input signals based on the comparison.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis M. Butler whose telephone number is 703-305-9663. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/891,651  
Art Unit: 2115

Page 6

*Dennis M. Butler*

Dennis M. Butler

Primary Examiner

Art Unit 2115